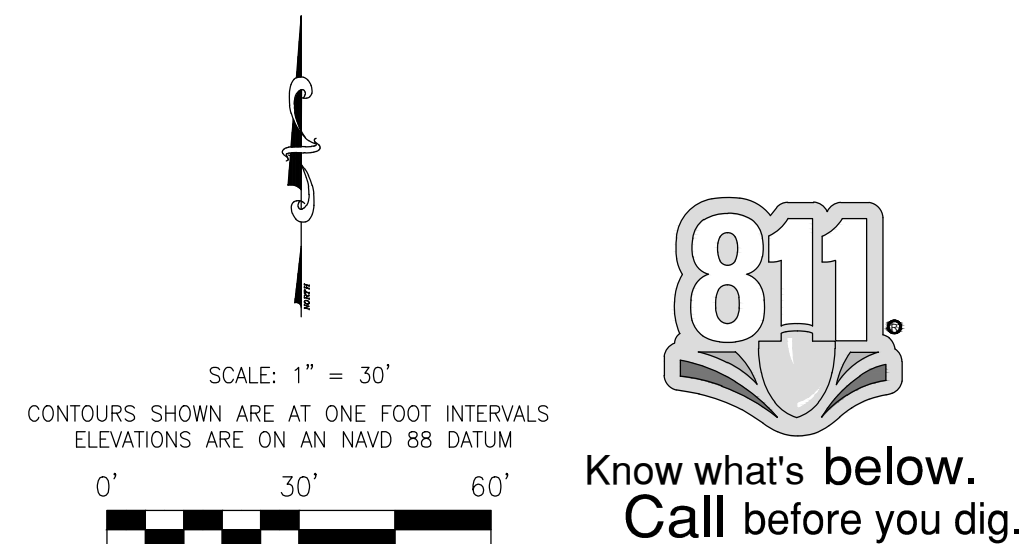
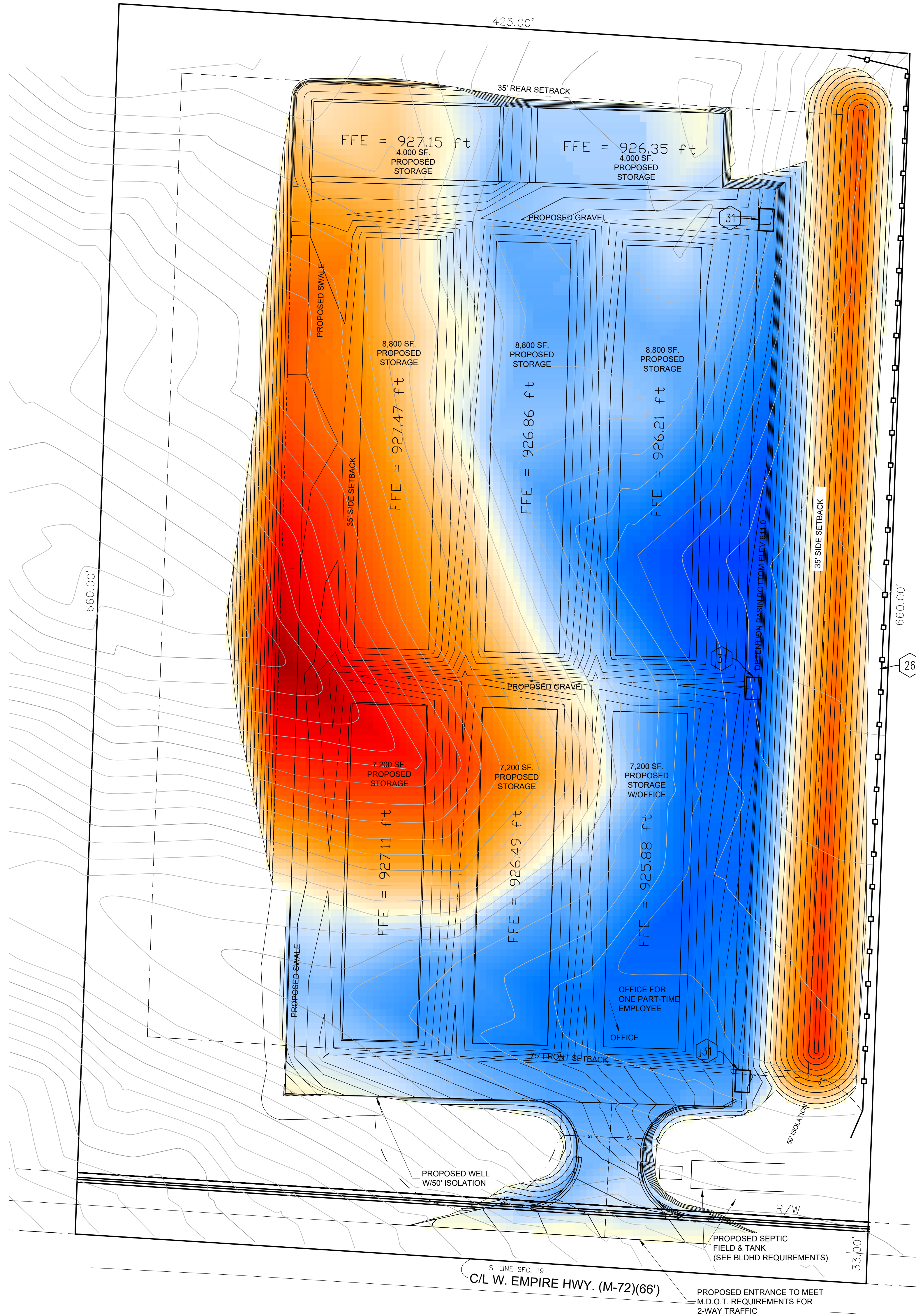
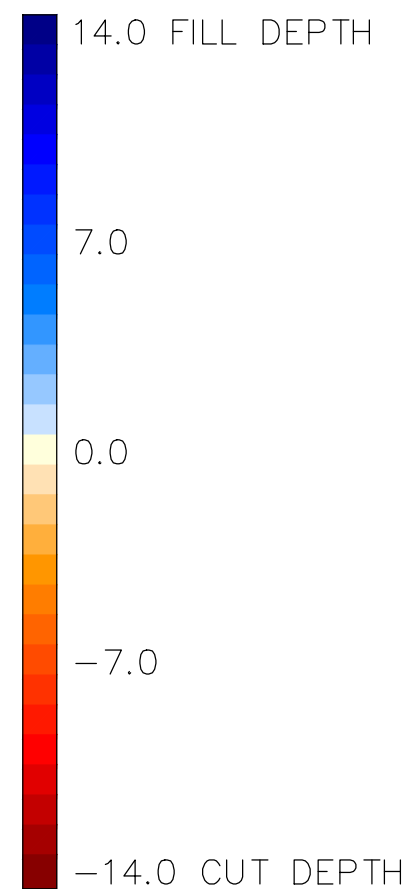


COLORS INDICATE RELATIVE DEPTH OF CUTS  
AND FILLS NEEDED TO BALANCE THE SITE



Exfiltration Design:			Tue
Oct 19 10:11:15 2021			
Area Type:		Pond	Wetted Area
Exfiltration Velocity:	0.50		in/hr
Invert Elevation:	At All Elevations		
Exfiltration Discharge:	0.1984		cfs

Pond Parameters - Stage-Storage Curve	
Stage(ft)	Storage(c.ft)
911.00	0.00
912.00	2701.59
913.00	8506.86
914.00	17472.34
915.00	29654.57
915.98	44840.70

Stage (ft)	Discharge(cfs)
911.00	0.00
911.50	0.03
912.00	0.05
912.50	0.07
913.00	0.09
913.50	0.10
914.00	0.12
914.50	0.14
915.00	0.16
915.50	0.18
915.98	0.20

Runoff Hydrograph: SCS Method  
Oct 19 10:18:33 2021  
Unit Hydrograph: SCS Curvilinear

Input Data:		
Drainage Area		139808.00
sq.ft		
Runoff Curve Number, CN	98	
Time of Concentration	15.0	min
Base Flow	0.0000	
Antecedent Moisture Condition	Type II	
Rainfall Distribution Type	Type II 24-HOUR	
Return Period	100 Year	
Rainfall Depth	4.92	in
Time Increment	0.10	

Computed Results:	
Peak Discharge (Qp)	15.2323 cfs
Time to Peak	12.20 min
Peak Rate Factor	484
Runoff Volume	1.25 ac-ft

Reservoir Routing: Storage Indication Method Tue C  
10:25:05 2021

Input Files:  
 Inflow Hydrograph Curve:  
 C:\Users\shounie\Drive-Sync\_rickprinceeng@gmail.com\princeengineer\Krause\inflow.hyd  
 Stage-Storage Curve:  
 C:\Users\shounie\Drive-Sync\_rickprinceeng@gmail.com\princeengineer\Krause\pond.cap  
 Stage-Discharge Curve:  
 C:\Users\shounie\Drive-Sync\_rickprinceeng@gmail.com\princeengineer\Krause\pond.stg

Results:		
Inflow Peak Flow:	15.23	cfs
Inflow Peak Time:	12.20	hr
Routed Peak Flow:	0.20	cfs
Routed Peak Time:	20.30	hr
Maximum Pond Storage:	1.0164	acre-feet
Maximum Pond Elevation:	915.95	ft

Exfiltration Design	Thur
Area Type:	Pond Wetted Area
Exfiltration Velocity:	3.00 in/hr
Invert Elevation:	At All Elevations
Exfiltration Discharge:	1.1905 cfs

Pond Parameters - Stage-Storage Curve	
Stage(ft)	Storage(c.ft)
911.00	0.00
912.00	2701.59
913.00	8506.86
914.00	17472.34
915.00	29654.57
915.98	44840.70

Stage (ft)	Discharge(cfs)
911.00	0.00
911.50	0.19
912.00	0.30
912.50	0.40
913.00	0.51
913.50	0.62
914.00	0.74
914.50	0.85
915.00	0.96
915.50	1.08
915.98	1.19

Reservoir Routing: Storage Indication Method Thu Oct 21 16:50:43 2021

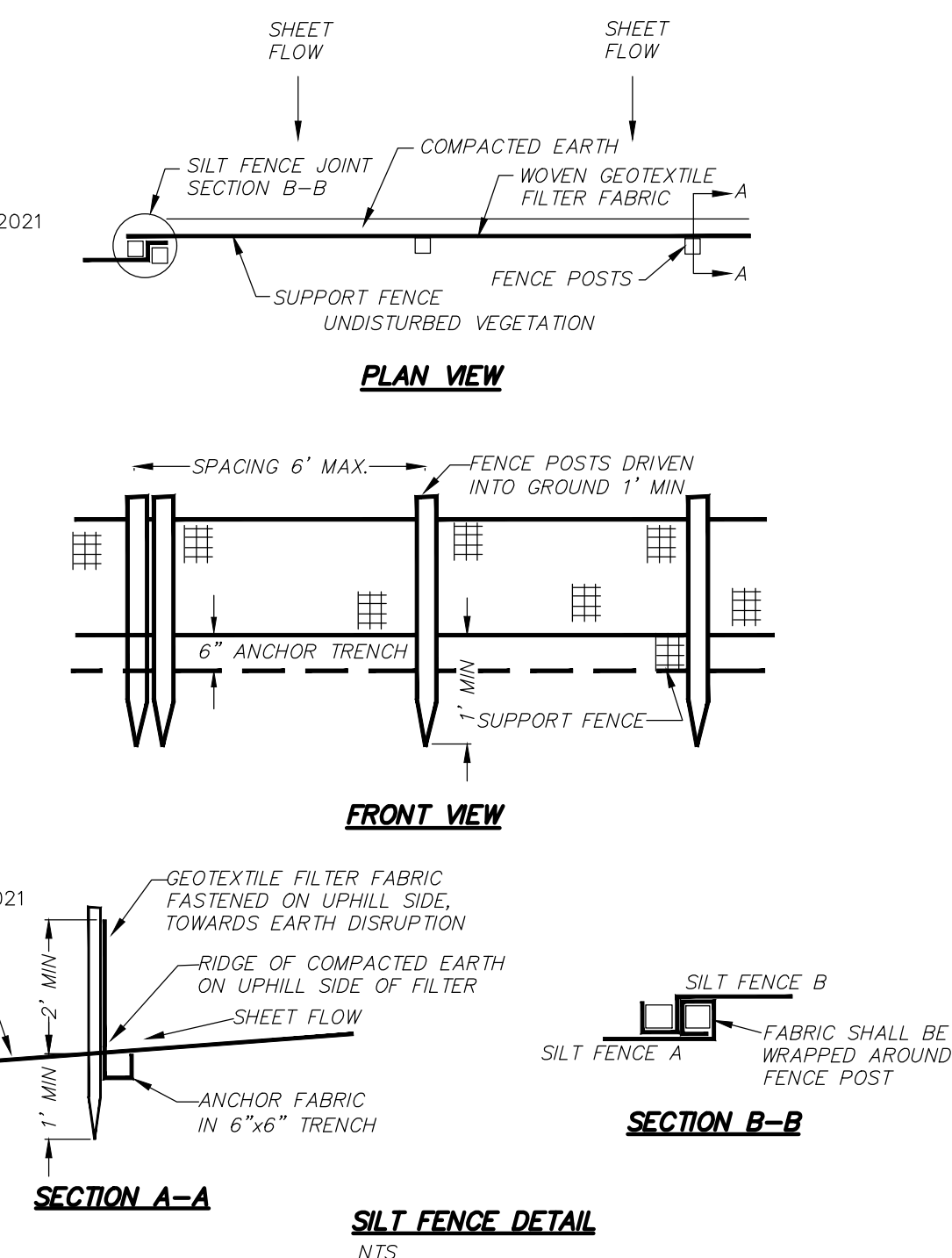
Input Files:


- Inflow Hydrograph Curve:  
C:\Users\shaunie\Drive-Sync\_rickprinceeng@gmail.com\princeengineer\Krause\inflow.hyd  
Stage-Storage Curve:  
C:\Users\shaunie\Drive-Sync\_rickprinceeng@gmail.com\princeengineer\Krause\pond.cap
- Stage-Discharge Curve:  
C:\Users\shaunie\Drive-Sync\_rickprinceeng@gmail.com\princeengineer\Krause\pond\_3in\_hr.stg

Results:		
Inflow Peak Flow:	15.23	cfs
Inflow Peak Time:	12.20	hr
Routed Peak Flow:	0.99	cfs
Routed Peak Time:	13.40	hr
Maximum Pond Storage:	0.7235	acre-feet
Maximum Pond Elevation:	915.12	ft



1. THIS PROJECT SHALL BE CONSTRUCTED IN COMPLIANCE WITH PART 91 OF 1994 P.A. 451, AS AMENDED, THE SOIL EROSION AND SEDIMENTATION CONTROL ACT.
2. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE COUNTY OFFICE OF THE DRAIN COMMISSIONER.
3. EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE NATURAL AND MANMADE OPEN CREEKS, STREAMS, STORM DRAINS, LAKES AND PONDS.
4. STAGING THE WORK SHALL BE DONE BY THE CONTRACTOR OR CONTRACTOR'S REPRESENTATIVE AS DIRECTED IN THESE PLANS AND AS REQUIRED BY THE PROJECT ENGINEER TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED EARTH CHARGE.
5. THE CONTRACTOR OR CONTRACTOR'S REPRESENTATIVE SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF SOIL EROSION AND SEDIMENTATION CONTROL DEVICES.
6. THE CONTRACTOR OR CONTRACTOR'S REPRESENTATIVE SHALL IMPLEMENT AND MAINTAIN SOIL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND BEFORE ANY AT ALL TIMES DURING CONSTRUCTION ON THIS PROJECT. ANY MODIFICATIONS OR ADDITIONS TO SOIL EROSION CONTROL MEASURES DUE TO CONSTRUCTION OR CHANGED CONDITIONS SHALL BE COMPLIED WITH AS REQUIRED OR DIRECTED BY THE ENGINEER. IF ANY OF THESE SESC MEASURES ON THE SITE ARE DEEMED INADEQUATE OR INEFFECTIVE, THE ENGINEER HAS THE RIGHT TO REQUIRE ADDITIONAL SESC MEASURES.
8. INSTALL SILT FENCE AS INDICATED ON PLAN AND AT ADDITIONAL AREAS AS NECESSARY.
  - A. SILT FENCE SHALL BE INSTALLED PER DETAIL.
  - B. BUILD-UP SEDIMENT SHALL BE REMOVED WHEN SEDIMENT ACCUMULATES TO 1/3 TO 1/2 OF THE HEIGHT OF THE FENCE.
  - C. IF SILT FENCE FABRIC DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND BARRIER IS STILL REQUIRED, THE FABRIC SHALL BE REPLACED PROMPTLY.
  - D. SILT FENCE SHALL BE MAINTAINED THROUGHOUT ALL WEATHERAL CONDITIONS, WITHIN 24 HOURS OF RAINFALL AND DAILY DURING A PROLONGED RAIN EVENT. REQUIRED MAINTENANCE SHALL BE PROVIDED PROMPTLY.
9. ALL STOCKPILED SOILS SHALL BE MAINTAINED IN SUCH A WAY AS TO PREVENT EROSION FROM LEAVING THE SITE. IF THE STOCKPILE WILL BE ON SITE FOR MORE THAN 30 DAYS, THE STOCKPILE MUST BE SEEDED. SILT FENCE MUST BE INSTALLED AROUND THE PERIMETER OF THE STOCKPILE.
10. SEEDING TOPSOIL AND SEED GRADED AREAS WITHIN FIVE DAYS AFTER FINAL GRADE IS ESTABLISHED. IMMEDIATELY AFTER SEEDING, MULCH ALL SEEDED AREAS WITH UNWEATHERED SMALL GRAIN STRAW. SPREAD UNIFORMLY AT THE RATE OF 1/2 TO 2 TONS PER ACRE OR 100 POUNDS (2-3 BALS) PER 1000 SQUARE FEET. THIS MULCH SHOULD BE ANCHORED WITH A DISC TYPE MULCH ANCHORING TOOL, ADHESIVE, OR OTHER MEANS TO PREVENT THE MULCH FROM BEING DISLOADED.
11. IF DETERIORATION IS REQUIRED IN THE SCOPE OF WORK, IT SHALL BE DISCHARGED THROUGH A FILTER BAG OVER A WELL VEGETATED AREA. THE WATER SHALL DISCHARGE AT A NON-EROSIVE VELOCITY. IF NECESSARY, AN APPROVED ENERGY DISSIPATOR MAY BE USED.
12. ALL SOIL OR DEBRIS ON ANY ROAD OR OTHER PAVEMENT SHALL BE REMOVED IMMEDIATELY.
13. STREETS AND OR PARKING AREAS WILL BE SCRAPPED ON A DAILY BASIS AND SWEEP AT A MINIMUM OF ONCE PER WEEK BY THE CONTRACTOR OR CONTRACTOR'S REPRESENTATIVE.
14. DURING DRY PERIODS, ALL DISTURBED AREAS SHALL BE WATERED FOR DUST CONTROL.
15. PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES OR ANY DISTURBED LAND AREAS SHALL BE COMPLETED WITHIN FIVE (5) CALENDAR DAYS AFTER FINAL GRADING OR DRAINAGE CHANGES HAVE BEEN COMPLETED. WHERE IT IS NOT POSSIBLE TO PERMANENTLY STABILIZED DISTURBED AREA AFTER EARTH CHARGE HAS BEEN COMPLETED OR WHERE SIGNIFICANT EARTH CHARGE ACTIVITY CEASES, TEMPORARY SOIL EROSION MEASURES SHALL BE IMPLEMENTED IMMEDIATELY. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE PERIOD SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED. ALL PERMANENT SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AND ESTABLISHED BEFORE SUBSTANTIAL COMPLETION WILL BE GRANTED.
16. GRADE, STABILIZED VEGETATION AND/OR LANDSCAPE ALL DISTURBED AREAS NOT BY THE CONTRACTOR OR PAVED AREAS SHALL BE MAINTAINED.
17. REMOVE ALL TEMPORARY SOIL EROSION DEVICES AFTER PERMANENT STABILIZATION IS ESTABLISHED.



<b><u>SOIL EROSION &amp; SEDIMENTATION CONTROL QUANTITIES, PROJECT TOTAL</u></b>		
<b>KEY NO.</b>	<b>ITEMS</b>	<b>QTY</b>
26	EROSION CONTROL, SILT FENCE 	600 FT
31	EROSION CONTROL, INLET PROTECTION SEDIMENT TRAP	3 EA

KEY NUMBER REFERS TO MDOT STANDARD PLAN R-96-E